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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,843	06/14/2001	Yong Rui	MCS-070-00	2837

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EXAMINER

ENG, GEORGE

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 07/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/681,843

Applicant(s)

RUI ET AL.

Examiner

George Eng

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2643

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 15 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 15, the phrase “may be” renders the claim vague and indefinite because the phrase does not positively identify the limitation such that it is unclear whether a multiple camera views is being able to obtain from the omni-directional image or not.

Regarding claim 18, the phrase “may” renders the claim vague and indefinite because the phrase does not positively identify the limitation such that it is unclear whether the view is able to select to view multiple portion of the omni-directional image or not.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2643

3. Claims 1, 3, 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Ippolito et al. (US PAT. 6,072,522 hereinafter Ippolito).

Regarding claim 1, Ippolito discloses a presentation system for capturing and viewing an event having event participants (19) as shown in figure 1 comprising an omni-directional camera system (100) for providing an omni-directional image of the event and simultaneously monitoring the event participants and film the event (col. 7 line 41 through col. 8 line 23), an a video conferencing management unit, read as an automated online broadcasting system, for controlling the omni-directional camera system and broadcasting the event (col. 6 line 66 through col. 7 line 24), and a viewer platform, i.e., a remote terminal, in communication with the automated online broadcasting system for allowing a viewer, i.e., a remote participant, to view the broadcasted event (col. 6 lines 66 through col. 7 line 6).

Regarding claim 3, Ippolito teaches the camera system including a plurality of cameras that combined provides an approximately 360-degree field of view (figure 8 and col. 13 lines 53-57).

Regarding claim 5, Ippolito teaches a switching module for allowing switching between of the omni-directional image of the event (col. 13 lines 59-67).

Art Unit: 2643

Regarding claim 7, Ippolito teaches an analysis module for finding and indexing the event participants (col. 7 lines 41-46).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 2, 4, 8-9 and 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ippolito et al. (US PAT. 6,072,522 hereinafter Ippolito) in view of Martin (US PAT. 5,877,801 hereinafter Martin).

Art Unit: 2643

Regarding claims 2 and 4, Ippolito differs from the claimed invention in not specifically teaching a camera having a wide-angle lens or wide-angle image device for obtaining wide-angle view of approximately 360 degrees. However, Martin teaches to use a wide-angle lens in order to improve a field of view (col. 3 lines 40-45). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ippolito in using wide-angle lens or wide-angle image device for obtaining wide-angle view, because it improves the field of view.

Regarding claim 8, Ippolito teaches a method for filming an event having event participants (19) and presenting the filmed event to a viewer, i.e., a remote participant, comprising filming the event using an omni-directional camera system (100) to provide an omni-directional image containing each of the event participant and determining a location of the event participants in the omni-directional image (col. 7 lines 41 through col. 8 line 23). Ippolito differs from the claimed invention in not specifically teaching to provide a user interface to allow the viewer to chooses which of the event participants to view. However, Martin teaches a method for omni-directional image viewing at a remote location having a user interface (38) for allowing a viewer to select views (col. 4 lines 1-48). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify ippolito in having the user interface, as per teaching of Martin, because it makes user friendly so that it provides selection to a user for selecting a desire perspective-corrected view.

Regarding claim 9, Martin teaches a computer readable medium having computer executable instruction for performing (col. 4 lines 9-18).

Art Unit: 2643

Regarding claims 14-16, Ippolito teaches the location of the event participants in the omni-directional image determined by using speaker detection technique, i.e., microphone-array sound source localization technique, to determine which of the event participant is speaking, wherein camera view can be switched from one to another (col. 7 lines 38-62 and col. 13 lines 53-67).

Regarding claim 17, Ippolito teaches that the omni-directional camera system is an array camera having an approximately 360-degree field of view (figure 8).

Regarding claim 18, the limitations of the claim are rejected as the same reasons set forth in claim 8. Although neither Ippolito nor Martin specifically defines that the communication network is a computer network, Martin clearly teaches a terminal at a remote site comprising a computer controller (col. 4 lines 9-18) such that it recognizes the communication network comprising a computer network in order to interconnect computers for communications.

Regarding claim 19, Martin teaches that the viewer is able to select to view multiple portion of the omni-directional image (col. 2 lines 19-24 and col. 4 lines 35-48).

Regarding claim 20, Ippolito teaches the omni-direction image containing all event participants within the event environment (col. 7 lines 58-62).

Regarding claim 21, the limitations of the claim are rejected as the same reasons set forth in claim 18.

Regarding claims 22-23, Ippolito teaches a switching module for allowing switching between of the omni-directional image of the event, wherein the switching

Art Unit: 2643

module provides instantaneous switching between the multiple camera views (col. 13 lines 59-67).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ippolito et al. (US PAT. 6,072,522 hereinafter Ippolito) in view of St. Hilaire (US PAT. 5,790,182).

Regarding claim 6, Ippolito differs from the claimed invention in not specifically teaching the omni-direction camera system having a high resolution of approximately 1000 by 1000 pixels. However, St. Hilaire teaches a panoramic imaging system for providing high-resolution images, i.e., 1000 by 1000 pixels (col. 1 line 54 through col. 2 line 49). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ippolito in using the camera system having the high resolution, as per teaching of St. Hilaire, because it provides a high resolution image.

7. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ippolito et al. (US PAT. 6,072,522 hereinafter Ippolito) in view of Martin (US PAT. 5,877,801 hereinafter Martin) as applied in claim 9 above, and further in view of Howell (US PAT. 5,767,897).

Regarding claims 10-13, the combination of Ippolito and Martin differs from the claimed invention in not specifically teaching to store annotations associated with the event and to synchronize these annotations with the event so that it allows the viewer to select the annotations while the event is occurring, wherein the annotations include a

Art Unit: 2643

question and answer session. However, Howell teaches such (col. 5 lines 51-64, col. 6 lines 41-56 and col. 13 lines 60-67). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of Ippolito and Martin in storing annotations associated with the event and to synchronize these annotations with the event, as per teaching of Howell, because it maximizes the effectiveness of presentation.

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ippolito et al. (US PAT. 6,072,522 hereinafter Ippolito) in view of Martin (US PAT. 5,877,801 hereinafter Martin) as applied in claim 21 above, and further in view of Bruno et al. (US PAT. 5,710,591 hereinafter Bruno).

Regarding claim 24, the combination of Ippolito and Martin differs from the claimed invention in not specifically teaching to providing negative switching that allows switching to a camera view of a person speaking before the person begins to speak. However, Bruno teaches a conference system for switching a camera view of a person speaking before the person begins to speak (col. 4 line 62 through col. 5 line 7). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of Ippolito and Martin in switching to a camera view of a person speaking before the person begins to speak, as per teaching of Bruno, because it makes user friendly for subsequent retrieval and processing.

Art Unit: 2643

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Driscoll, Jr. et al. (US PAT. 6,219,089) discloses a method for using a panoramic camera and a panoramic motion image server in use in a video conferencing application (figure 8). Nayar (US PAT. 6,118,474) discloses an omnidirectional imaging apparatus (abstract). Okaya (US PAT. 5,808,663) discloses a multimedia carousel for use in video conferencing and multimedia presentation applications (col. 3 line 43 through col. 4 line 14).

10. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, V.A., Sixth Floor (Receptionist).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Eng whose telephone number is 703-308-9555. The examiner can normally be reached on Tuesday to Friday from 7:30 AM to 6:00 PM.

Art Unit: 2643

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A. Kuntz, can be reached on (703) 305-4870. The fax phone number for the organization where this application or proceeding is assigned is 703-308-6306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

A handwritten signature in black ink, appearing to read "George Eng". The signature is fluid and cursive, with the first name "George" and the last name "Eng" clearly distinguishable.

George Eng

Examiner

Art Unit 2643